ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Providing a Storage Tank Fill Point for Emergency Water Delivery

Env-Ws 372.20(m) requires that community public water systems with atmospheric water storage tank(s) have an auxiliary fill pipe capable of receiving water from tank trucks. This requirement is an aspect of emergency planning. The purpose of this fact sheet is to indicate the options for complying with this requirement.

To begin planning, it is necessary to determine the diameters and connector types used by tank truck haulers in your area. Since different companies may have different equipment, it may be necessary to have multiple adapters. Another option, though not desirable, is a removable funnel to allow feeding from above.

Another consideration is whether the tanker truck has its own water transfer pump. This is important relative to the time required to transfer a load of water, and even whether gravity flow transfer can be accomplished.

Shown below are some of the options for this supplementary tank feed.

NO CUTTING OF THE TANK

Feed-in Through the Booster Pumps Suction Line

In many water systems the suction manifold piping for the booster pumps has a plugged fitting that was installed to accommodate future pump(s). Where available, the plug can be removed, and a gate valve and appropriate adapters added. The cost where provisions already exist, is approximately $ 200.

Feed-in Through Bottom Drain

The typical diameter of a tank bottom drain is 2". This pipe already has a gate valve. Fabricate a connector in the form of a standpipe for this point (including the drain) and install with appropriate feed-in adaptor. The cost is $150. The drawback of this method is the potential of stirring-up the sediment in the tank bottom each time water is added.

Feed-in Through Other Connections on the Atmospheric Tank

Many atmospheric tanks have additional threaded connection points in the butt end of the tank or along the top crown of the tank. These openings are typically sealed by a screwed plug. If these connection points are not located inside the pump station, it may be necessary to temporarily remove the backfill along the outside crown of the tank to find such fittings.

If a feed-in point presently outside the control building is used, that feed-in pipe should made permanent from galvanized piping, returned back into the inside the pump station. Corrosion

protection should be considered on that pipe and backfill should be replaced to cover the pipe so as to protect against vandalism.

Breather Connections
All atmospheric tanks have a vent pipe. It may be possible to fabricate a fitting that allows both the venting function and the emergency refill function to take place simultaneously. The estimated cost is $200.

Well Feed Lines
Most incoming raw water feed lines from wells are plastic, and thus are very easily tapped. Install a tee fitting, gate valve, and connector/adaptor. Since these lines are small, multiple connections could be used to allow a quick discharge of the water tanker.

CUTTING AND WELDING THE TANK
The side wall of an atmospheric tank can be cut by an acetylene torch and the proper size threaded connector welded on. This is not a preferred alternative. The tank coating will be damaged by the welding and water contamination is possible when there is cutting.

FOR ADDITIONAL INFORMATION
For additional information please call the DES's Water Supply Engineering Bureau at 271-3139. We would appreciate your comments concerning this fact sheet. For a complete list of water supply fact sheets' please request **WD-WSEB-15-2**. Drinking water fact sheets are available through the DES web site at: **www.des.state.nh.us/ws.htm** then select: fact sheets.